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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,644	10/15/2003	Jochen Koetke	GMH/411/US	4993

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EXAMINER	
LAVARIAS, ARNEL C	

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/685,644	KOETKE, JOCHEN	
	Examiner	Art Unit	
	Arnel C. Lavarias	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 October 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/15/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendments to the specification in the preliminary amendment filed 10/15/03 are acknowledged and accepted.

2. The amendments to Claims 1-14 in the preliminary amendment filed 10/15/03 are acknowledged and accepted.

3. The addition of Claims 15-20 in the preliminary amendment filed 10/15/03 is acknowledged and accepted.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

5. The drawings were received on 10/15/03. These drawings are objected to for the following reason(s) as set forth below.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "10, 11, 12" (See Figure 2) have been used to designate both elements in a beam path and elements of the eye. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include

all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to because of the following informalities:

Figures 1, 2, 3, 4, 6- Solid black shading not permitted; See 37 CFR 1.84(m)

Figures 2, 5, 6- Numbers and reference characters not plain and legible; See 37 CFR 1.84(p).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

8. The disclosure is objected to because of the following informalities:

Page 5, line 20- 'image plane' should read 'object plane'.

Appropriate correction is required.

Claim Objections

9. Claims 1-20 are objected to because of the following informalities:

Regarding Claims 1, 3-6, 15-20, the phrase "can be" renders the claim uncertain in scope because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. Claims 2-20 are dependent on Claim 1, and hence inherit the deficiencies of Claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-3, 5-6, 8-9, 11, 15, 18-19, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Penney et al. (U.S. Patent No. 5258791).

Penney et al. discloses an operation microscope (See for example Figures 1-2, 4-6) with an illumination device (See for example 12, 52 in Figure 1) which is arranged behind a front lens (See for example 14, 64 in Figure 1) and illuminates an object plane (See for example 48 in Figure 1) with a light patch (See Figure 3) and in whose beam path a diaphragm (See for example 32, 34, 56, 58 in Figure 1) is arranged which partially covers the beam path and the beam path has an optical axis, wherein the light patch is moved with a translatory movement component in the object plane (See col. 9, line 1-col. 14, line 4). Penney et al. additionally discloses the diaphragm being designed for a movement with a translatory component in the beam path perpendicular to the optical axis of the illuminating beam path (See for example 36, 32, 34 in Figure 1; col. 9, line 1-col. 14, line 4); the illuminating device is movable relative to the diaphragm (See for example 22,12 in Figure 1; col. 9, line 1-col. 14, line 4); the diaphragm is arranged in a diaphragm support which is movable perpendicular to the optical axis of the illuminating path (See for example 32 in Figure 1; col. 9, line 1-col. 14, line 4); more than one diaphragm may be provided on the diaphragm support (See for example 132, 134 in Figure 4); the diaphragm or at least one diaphragm is circular (See for example 34 in Figure 1); the diaphragm is movable in two directions perpendicular to one another and linearly perpendicular to the optical axis of the illuminating beam path (See for example 36 in Figure 1; col. 9, line 1-col. 14, line 4); the diaphragm is arranged in a diaphragm

support which is rotatably mounted eccentrically with respect to the optical axis of the illuminating beam path (See for example 132 in Figure 4).

12. Claims 1-2, 4-5, 7-13, 16, 18, 20, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Sigelman (U.S. Patent No. 4671631).

Penney et al. discloses an operation microscope (See for example Figures 1, 9, 10) with an illumination device (See for example 102 in Figure 9) which is arranged behind a front lens (See for example 14, 64 in Figure 1) and illuminates an object plane (See col. 6, line 43-col. 7, line 20) with a light patch (See 233, 234 in Figure 10a-b which provide the final light patch shape used to illuminate the patient's eye) and in whose beam path a diaphragm (See for example 240, 241, 242 in Figure 10a; 250, 251, 252, 253, 254 in Figure 10b) is arranged which partially covers the beam path and the beam path has an optical axis, wherein the light patch is moved with a translatory movement component in the object plane (See col. 5, lines 10-25). Penney et al. additionally discloses the diaphragm being designed for a movement with a translatory component in the beam path perpendicular to the optical axis of the illuminating beam path (See Figures 9-10; See col. 5, lines 10-25); the light patch is movable by pivoting a deflection element for the illuminating light (See 86, 90, 94 in Figures 1, 4); the diaphragm is arranged in a diaphragm support which is movable perpendicular to the optical axis of the illuminating path (See 240, 241, 242 in Figure 10a; 250, 251, 252, 253, 254 in Figure 10b); the diaphragm may be rotated about an axis parallel to the optical axis of the illuminating beam path (See 233, 234 in Figures 9-10); the diaphragm is arranged in a diaphragm support which is rotatably mounted eccentrically with respect to the optical axis of the

illuminating beam path (See 233, 234 in Figures 9-10); more than one diaphragm may be provided on the diaphragm support (See 240, 241, 242 in Figure 10a; 250, 251, 252, 253, 254 in Figure 10b); the diaphragm or at least one diaphragm is slit-shaped or circular (See 240, 241, 242 in Figure 10a; 250, 251, 252, 253, 254 in Figure 10b); the diaphragm has a modifiable slit width size (See 250, 251, 252, 253, 254 in Figure 10b); and the diaphragms are arranged on a diaphragm support which is partially transmitting at least in subareas (See 240, 241, 242 in Figure 10a; col. 5, lines 10-25).

Claim Rejections - 35 USC § 103

13. Claim 12, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Penney et al.

Penney et al. discloses the invention as set forth above in Claim 1, but does not explicitly disclose the diaphragm having a modifiable slit width size of a modifiable circle diameter size. However, Penney et al. additionally teaches that the size of the aperture controls the size of the portion of the cornea which constitutes the measurement point, and that it is advantageous to utilize a smaller diameter aperture to prevent interference from the pupil of the eye, as well as block out unnecessary light form striking the cornea outside the measurement point (See col. 10, line 58-col. 11, line 25; col. 12, lines 48-57). Thus, one of ordinary skill in the art would have found it obvious to have the aperture include some means for adjusting its diameter, instead of utilizing a fixed-diameter aperture. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the diaphragm of the operation

microscope of Penney et al., have a modifiable slit width size of a modifiable circle diameter size, for the purpose of optimizing the measurement point, while preventing interference from unwanted stray light.

14. Claim 14, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Penney et al.

Penney et al. discloses the invention as set forth above in Claim 1, except for the diaphragm and/or deflection element being adjusted by motor. However, Penney et al. additionally discloses that the diaphragm position may be adjusted via a system controller (See for example 80 in Figure 1) connected to a position drive system, such as an X-Y stage (See for example 36 in Figure 1). It is well known in the art that such conventional X-Y stages utilize motors to provide the movement needed for the stages. Official notice is taken. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the diaphragm and/or deflection element of the operation microscope of Penney et al., be adjusted by motor, to provide fast, automated movement of the stage without user intervention.

15. Claims 4, 16-17, 20, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Penney et al.

Penney et al. discloses the invention as set forth above in Claims 1-3, but does not explicitly disclose the light patch being movable by pivoting of a deflection element for the illuminating light. However, Penney et al. additionally discloses (See col. 10, lines 32-57) that the light source, as an alternative to directly moving the light source (See 12 in Figure 1) itself, may be fixed in position, and the light emitted from the source is

reflected by a galvanometer mounted mirror whose orientation is controlled by the control system (See 80 in Figure 1), which provides a similar effect to moving the source with an X-Y stage. It is noted that such galvanometer mounted mirrors typically pivot about an axis, and that by moving the beam using such a mirror, the light patch will necessarily move. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the light patch in the operation microscope of Penney et al., be movable by pivoting of a deflection element for the illuminating light, to allow for extremely fast, repetitive, and repeatable movement and scanning of the light beam from the light source.

16. Claim 7, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Penney et al.

Penney et al. discloses the invention as set forth above in Claims 1, 5, except for the diaphragm being rotated about an axis parallel to the optical axis of the illuminating beam path. However, Penney et al. additionally discloses a second embodiment (See for example Figure 4), wherein a scanning disk having an axis of rotation that is parallel to the optical axis of the illuminating beam path is used to scan a light patch across the retina of the eye (See 132, 134 in Figure 4; col. 14, line 43-col. 15, line 2; col. 18, lines 29-65). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the diaphragm of the operation microscope of Penney et al., further be rotated about an axis parallel to the optical axis of the illuminating beam path, to allow for extremely fast, repetitive, and repeatable scanning of the light patch, reducing the required measurement time.

17. Claim 10, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Penney et al. in view of Sigelman.

Penney et al. discloses the invention as set forth above in Claims 1, 5, except for the diaphragm or at least one diaphragm being slit-shaped. However, slit-shaped diaphragms are well known in the art. For example, Sigelman teaches a conventional binocular ophthalmoscope (See for example Figures 1, 9), which includes a light source assembly (See Figure 9). In particular, the light source assembly includes a selector including two aperture disks (See 230 in Figures 1, 9, Figure 10a, b), the aperture disks including circular- and slit-shaped apertures. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the diaphragm of the operation microscope of Penney et al., further be slit-shaped, as taught by Sigelman, for the purpose of providing a light patch shape appropriate for the intended application, while allowing for efficient blocking and intensity adjustment of the incident light.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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11/21/05